

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application: Sheri Lynn Baker et al.

Serial No.: 10/683,967

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For: Toasted Flavor Additive

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Group Art Unit: 1761

Examiner: Corbin, Arthur L.

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ATTENTION: Board of Patent Appeals and Interferences

APPELLANT'S BRIEF (37 C.F.R. § 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on July 9, 2007.

The fees required under § 41.20(b)(2) were paid upon the filing of the Notice of Appeal. Consequently, no fees are believed to be due. If, however, any fees are required, I authorize the Commissioner to charge these fees to Carstens & Cahoon LLP, Deposit Account No. 50-0392.

I. REAL PARTIES IN INTEREST (37 C.F.R. 41.37(c)(1)(i))

The real party in interest in this appeal is the following party: Frito-Lay North America, Inc., Incorporated in the state of Texas.

II. RELATED APPEALS AND INTERFERENCES (37 C.F.R. 41.37(c)(1)(ii))

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

III. STATUS OF CLAIMS (37 C.F.R. 41.37(c)(1)(iii))

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1 - 44.

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims pending: 1-3, 5, 17-22, 24, 26, and 44.
2. Claims previously cancelled: 4, 6-16, 23, 25 and 27-43.
3. Claims withdrawn: None.
4. Claims rejected: 1-3, 5, 17-22, 24, 26, and 44.
5. Claims allowed: None.
6. Claims cancelled in accompanying amendment: None.

C. CLAIMS ON APPEAL

The claims on appeal are: 1-3, 5, 17-22, 24, 26, and 44.

IV. STATUS OF AMENDMENTS (37 C.F.R. 41.37(c)(1)(iv))

No amendments were filed after final rejection.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER (37 C.F.R. 41.37(c)(1)(v))

The claimed invention is related to a toasted corn flavor additive and method for using the additive in a fresh masa dough.

Claim 1 is directed towards a toasted corn flavor additive comprising a regrind of toasted, sheeted, freshly-made masa dough derived from ground whole corn kernels, wherein said regrind has:

an oil content of about 2.0% to about 5.0% by weight (p. 18, ln. 6);

a dimethyl-ethyl-pyrazine concentration such that if said regrind was mixed with a sample of untoasted dry masa chips, said regrind would enable the resulting mixture to exhibit a dimethyl-ethyl-pyrazine concentration of about 0.05 ppm (Fig. 5, numeral 540);

a colorimeter L-value of approximately 49 (pg. 20, ln. 7);

a moisture content ranging from about 0.1% to about 15% by weight (pg. 6, ln. 12).

Claim 17 is directed towards a method for making a toasted corn flavor for dry masa flour, the method comprising the steps of:

- a) forming a fresh masa dough (pg. 14, lns. 8-14);
- b) sheeting said fresh masa dough (pg. 14, lns 18-20);
- c) cutting said dough into a plurality of flavor performs (pg. 14, lns 21-23);

- d) toasting said flavor preforms to form a plurality of toasted flavor pieces having a moisture content ranging from about 0.5% by weight to about 15% by weight (pg. 16, lns. 21-23); and
- e) grinding said toasted flavor pieces into a powder to form a toasted corn flavor additive (pg. 17, lns. 18-23) having: a dimethyl-ethyl-pyrazine concentration such that if said toasted corn flavor additive was mixed with a sample of untoasted dry masa chips, said toasted corn flavor additive would enable the resulting mixture to exhibit a dimethyl-ethyl-pyrazine concentration of about 0.05 ppm (Fig. 5, numeral 540); a colorimeter L-value of approximately 49 (pg. 20, ln. 7); and an oil content ranging from about 2.0% to about 5.0% by weight. (pg. 18, ln. 6)

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

(37 C.F.R. 41.37(c)(1)(vi))

1. Claim 44 is rejected under 35 U.S.C. 112 as set forth in paragraph no. 2, Paper No. 20070330. The relevant portion of that Office Action states,

The claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the original disclosure for . . . the concentration claimed in claim 44.

2. Claims 1, 5 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Salmon Patties" in view of Ellis et al (4,806,377) as set forth on pages 5-6 of the January 26, 2005 Office action and in paragraph no. 5, Paper No. 101906. The relevant portion of that Office Action indicates that,

In regard to claims 1, 4, and 5, "Salmon Patties" discloses a recipe that calls for the grinding of corn chips (page 3) and the addition of the regrind to food. "Salmon Patties" does not disclose the moisture content or the oil content of the corn chips. Ellis discloses corn chips with a moisture content of less than 2% by weight (column 3, lines 47-50) and an oil content of 2-30% by weight (column 2, lines 34-39). "Salmon Patties" suggests the use of Fritos, but it is expected that any corn chips would suffice and therefore, it would be obvious to use the corn chips of Ellis to make the regrind used in "Salmon Patties." Absent a showing to the contrary by clear and convincing evidence, and because it is not clear from the applicant's disclosure as to what the exact ash content applicant means to claim, it would be expected that the crushed corn chips of "Salmon Patties" have the increased ash content as that claimed.

3. Claims 17-22, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Food Product Design" in view of "Salmon Patties" and Ellis et al as set forth on pages 7-8 of said Office action and in the last sentence of paragraph no. 5, Paper No. 101906. The relevant portion of that Office Action indicates that,

In regard to claims 17-25, methods of making corn chips were well known to one of ordinary skill in the art, as evidenced by "Food Product Design" (page 3). "Food Product Design" discloses the cooking of a plurality of whole corn kernels in a solution of water and lime, steeping the kernels in the solution, draining the solution from the kernels and washing the kernels to form a fresh masa dough and then sheeting the masa dough, cutting the dough, and toasting the dough to remove excess moisture (page 3). "Food Product Design" further discloses the frying of the toasted flavor pieces after toasting in a triple-pass gas-fired oven, which utilizes both convective heat and infrared radiation (page 3). "Food Product Design" does not disclose the moisture content or oil content of the chips and also does not disclose the grinding of the chips. However, Ellis discloses corn chips with a moisture content of less than 2% by weight (column 3, lines 47-50) and an oil content of 2-30% by weight (column 2, lines 34-39) and it would therefore have been obvious to use the method of "Food Product Design" to make chips with low moisture and oil content as taught by Ellis in order to provide chips with low moisture and oil content as taught by Ellis in order to provide chips with reduced fat content. "Salmon Patties" discloses the grinding of corn chips (page 3) for use as filling material in a food product. It therefore would have been obvious to grind the corn chips made by the method of "Food Product Design" for use as a coating or filler with food products. "Food Product Design" does not disclose the L-value of the crushed corn chips. However, absent a showing of clear and convincing evidence to the contrary, it is expected that corn chips in general are darker than dry masa dough since they are made from masa dough that is toasted and fried and both of these processes are known to make foods darker.

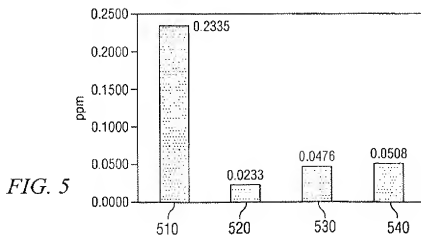
VII. ARGUMENT – REJECTIONS UNDER 35 U.S.C. 103(a)
(37 C.F.R. 41.37(c)(1)(vi))

Group I: Claim 44

In determining whether the written description requirement is satisfied, the specification as a whole must be considered. *In re Wright*, 866 F.2d 422, 425, 9 U.S.P.Q.2d 1649, 1651 (Fed. Cir. 1989). The requisite description may be made through drawings or formulas. *In re Wolfensperger*, 302 F.2d 950, 955, 133 U.S.P.Q. 537, 541 (C.C.P.A. 1962); *In re Kaslow*, 707 F.2d 1366, 1375, 217 U.S.P.Q. 1089, 1096 (Fed. Cir. 1983).

Referring to Figure 5 of the patent application, reproduced below, the original filed patent application on page 28 beginning at line 7 discloses,

FIG. 5 is a graph comparing the concentrations of dimethyl-ethyl-pyrazine found in standard toasted tortilla chips, untoasted dry masa chips without TCF additive, and untoasted dry masa chips with TCF additive. The results shown in FIG. 5 were obtained by gas-chromatography/mass-spectrometry analysis (GC/MS). The vertical or y-axis of the graph in FIG. 5 measures the concentration of dimethyl-ethyl-pyrazine in parts-per-million (ppm), while the horizontal or x-axis contains four vertical bars that represent the dimethyl-ethyl-pyrazine concentrations of four test samples. Reading from left to right, the four vertical bars represent the dimethyl-ethyl-pyrazine levels in standard toasted tortilla chips 510, untoasted dry masa chips 520, a first sample of untoasted dry masa chips having TCF additive 530, and a second sample of untoasted dry masa chips having TCF additive 540. Although the dimethyl-ethyl-pyrazine concentrations in the two TCF-enhanced samples 530, 540 were still significantly lower than the concentration in standard toasted tortilla chips 510, the dimethyl-ethyl-pyrazine concentrations of the two TCF-enhanced samples 530, 540 were more than double the amount present in the non-TCF-enhanced chips 520. Thus, the higher levels of dimethyl-ethyl-pyrazine demonstrate a significant increase in toasted corn flavor with the use TCF additive.



Numeral 520, which the specification indicates corresponds to “untoasted dry masa chips” in Figure 5 and numeral 520 corresponds to a concentration of 0.0233 ppm of dimethyl-ethyl-pyrazine. Claim 44 requires the limitation that “The toasted corn flavor additive of Claim 1 wherein untoasted dry masa chips has a dimethyl-ethyl-pyrazine concentration of

0.023 ppm.” Consequently, Applicants believe that when the specification is considered as a whole, the original disclosure provides support for the concentration claimed in claim 44. Consequently, Applicants respectfully request the Board over turn the Examiner’s rejection.

Group II: Claims 1, 5 and 44

The *prima facie* case of obviousness has not been made because all limitations are not taught or suggested by the prior art.

Claim one, which is representative of the Group I claims, reads as follows:
A toasted corn flavor additive comprising a regrind of toasted, sheeted, freshly-made masa dough derived from ground whole corn kernels, wherein said regrind has:
an oil content of about 2.0% to about 5.0% by weight;
a dimethyl-ethyl-pyrazine concentration such that if said regrind was mixed with a sample of untoasted dry masa chips, said regrind would enable the resulting mixture to exhibit a dimethyl-ethyl-pyrazine concentration of about 0.05 ppm;
a colorimeter L-value of approximately 49;
a moisture content ranging from about 0.1% to about 15% by weight.

All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994).

A. The cited references fail to teach or suggest the claimed limitation of a regrind, “such that if said regrind was mixed with a sample of untoasted dry masa

chips, said regrind would enable the resulting mixture to exhibit a dimethyl-ethyl-pyrazine concentration of about 0.05 ppm."

Applicants submit that even if chips made from the Ellis reference (U.S. Pat. No. 4,806,377) or FRITOS from the Salmon Patties reference were ground into a regrind, the resultant regrind would merely exhibit the toasted flavor of a standard toasted chip. Thus, when such regrind was mixed with a sample of untoasted dry masa, the resulting mixture would fail to exhibit the claimed dimethyl-ethyl-pyrazine concentration. The claimed invention is not directed to merely grinding up corn chips and putting the regrind into a dough. The claimed invention is directed towards making a toasted flavor additive having a concentrated toasted flavor, such that when the additive is added to a dough the resulting mixture exhibits a toasted flavor. For example, page 6, lines 5-7 of originally-filed application indicates that "the pieces are toasted until significant browning has occurred beyond the level normally associated with consumed masa products." Page 15, lines 3-5, teaches that "The TCF preforms 165, however, are toasted to a much greater extent than that to which corn masa preforms are normally toasted while forming a consumable corn tortilla chips." The MPEP clearly outlines examination guidelines including the court reminded instruction of: "The goal is to answer the question 'What did applicants invent?' See *In re Abele*, 684 F.2d 902,907,214 USPQ 682, 687 (Fed. Cir. 1992) and MPEP 2106. MPEP 2106 goes on to require the Examiner to "evaluate each claim limitation..." and to "correlate each claim limitation to all portions of the disclosure that describe the claim limitation ..." The "claim as a whole must be considered" and "when evaluating the scope of a claim, every limitation in the claim must be considered. In the present case, the invention concerns a particular way to make a toasted flavor

additive for a food products which is not addressed in any of the prior art. Even though this broad concept is not in the prior art of record, the Applicant has amended the claims to cover only the most preferred embodiments of the invention in that the claims are limited to a particular L-valve and dimethyl-ethyl pyrazine concentration. These features are simply not addressed in the prior art of record. Consequently, in light of the above, Applicants respectfully request the rejection as to claims 1, 5, and 44 be overturned.

In response to previous arguments, the Examiner states:

Applicant's contention, that the claimed concentration is not merely the product of routine experimentation, is a simple conclusion unsupported by any factual evidence of record. There is simply no factual evidence to indicate that said concentration is critical or achieves unexpected results. Applicant's comment with regard to the flavor intensity is not commensurate in scope with any of applicant's claims, which fail to recite a flavor intensity limitation. (Office Action mailed April 9, 2007, page 4, paragraph no. 11.)

Applicants first note that an affidavit signed by Professor Emeritus Dr. Russell Carl Hoskeny of Kansas State University was submitted in a filing on April 5, 2005. A copy of this affidavit is attached hereto in the evidence appendix. Office personnel should avoid assigning evidence no weight except in rare circumstances, MPEP 2144.08 IIB. In paragraph 8 of his affidavit, Dr. Hoskeny indicates that the toasted corn flavor additive of the Applicant's invention would have a different flavor note than that found in commercial corn chips. This flavor note results because the Applicants teach toasting the pieces until significant browning occurs. Dr. Hoskeny also indicates that Ellis in fact teaches away from the present invention "Because Ellis teaches that freshly-baked or toasted masa products are potentially bland and undesirable without at least some additional processing, such as adding oil and seasoning . . ." Consequently, there is factual evidence that the claimed invention is unobvious in view of the cited art. As the

Examiner failed to support his rejection of the claimed dimethyl-ethyl-pyrazine concentration in claims 1, 5 and 44 with an explanation or specific citation to any reference, Applicants respectfully request that the Board overturn the rejections.

B. The cited references also fail to teach or suggest the claimed limitation of a regrind having “a colorimeter L-value of approximately 49.”

The allegation in paragraph 11 of Office Action mailed on April 9, 2007, that “finding the optimum dimethyl-ethyl-pyrazine concentration and the optimum colorimeter L-value would require nothing more than routine experimentation by one reasonably skilled in this art,” is conclusory. Applicants note that the claimed variables are an objective measurement of the step of causing ‘significant browning’ to occur to provide the desired taste and appearance of the additive. For example, the application indicates that “4) the corn is ground, sheeted and cut into pieces; 5) the pieces are toasted until significant browning has occurred beyond the level normally associated with consumed masa products” (Orig. Pat. Appln., p. 6, at lines 5-7). The application further teaches that, “when added to a product to be enhanced, the embodiment of TCF described in FIG. 7 adds a darker, toasted color to the product and also gives such product the appearance of having toast points.” (Orig. Pat. Appln., p. 20, at lines 10-13). These claimed limitations of the dimethyl-ethyl-pyrazine concentration and L-value are not taught or suggested in the prior art.

The Examiner’s “findings should clearly articulate which portions of the reference support any rejection. ... Conclusory statements of similarity or motivation, without any articulated rationale or evidentiary support, do not constitute sufficient factual findings.” MPEP § 2144.08III. Rejections on obviousness grounds cannot be sustained by mere

conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. *Id.* at 1742. Findings of fact relied upon in making the obviousness rejection must be supported by substantial evidence within the record. *See In re Gartside*, 203 F.3d 1305, 1315 (Fed. Cir. 2000).

Again, page 6, lines 5-7 of the originally filed application indicates that “the pieces are toasted until significant browning has occurred beyond the level normally associated with consumed masa products.” Page 15, lines 3-5, teaches that “The TCF preforms 165, however, are toasted to a much greater extent than that to which corn masa performs are normally toasted while forming a consumable corn tortilla chips.” Page 20, lines 10-13, teaches that “when added to a product to be enhanced, the embodiment of TCF described in FIG. 7 adds a darker, toasted color to the product and also gives such product the appearance of having toast points. Accordingly, other embodiments of TCF additive can also add a darker, toasted color and appearance to dry masa corn product as long as the TCF additive has a colorimeter L-value of less than that of dry masa.” Figure 7 is directed towards the claimed L-value of “about 49.” Applicants have also indicated at page 18, lines 16-19 that “FIG. 7 is a chart comparing the moisture, oil, and color levels of one embodiment of TCF, Cargill Flavor Enhancer #10 (a commercially available flavor additive), and Lifeline Masa (a commercially available dry masa).” Figure 7 notes that these prior art additives have L-values (64.1 and 78.4) significantly higher than the claimed value of “about 49.” Applicants further note that the prior art is

replete with teaching much higher L-values for than the claimed value. For example, U.S. Pat. Application No. 2006/0263503 discloses L-values for corn flour in Table 3, Table 6, and Table 12. The lowest L-value in those Tables is 69.82.

The Examiner, again, without citation to any reference, makes the conclusory allegation that, "it is expected that corn chips in general are darker than dry masa dough since they are made from masa dough that is toasted and fried and both of these processes are known to make foods darker." (Office action mailed January 26, 2005). The MPEP admonishes that it is "not ... appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known." MPEP §2144.03(a). In cases involving chemical theories, it has been held that, in order to establish a *prima facie* case of obviousness, the PTO "must provide evidentiary support for the existence and meaning of that theory." *In Re Grose*, 592 F.2d 1161, 1167-68, 201 USPQ 57, 63 (CCPA 1979). The Examiner has failed to meet this burden because the Examiner has failed to show where in the prior art any support for the rejection of the claimed L-value.

Further, Examiners must consider comparative data in the specification which is intended to illustrate the claimed invention in reaching a conclusion with regard to the obviousness of the claims. *In re Margolis*, 785 F.2d 1029, 228 USPQ 940 (Fed. Cir. 1986). On page 21, beginning at line 1 of the original filed application, Applicants teach that

Figure 11 is a color photograph showing three rows of items from top to bottom: TCF additive (fine and coarse particles); fried dry masa chips without TCF ("non-TCF-enhanced" chips); and fried dry masa chips with TCF additive ("TCF-enhanced" chips). As seen in **Figure 11**, the TCF-

enhanced chips have a darker, more complex yellow color than the non-TCF-enhanced chips. The TCF-enhanced chips also have a higher density of toast points than the non-TCF-enhanced chips. These characteristics give the TCF-enhanced chips an enhanced toasted appearance. In addition, both the fine and the coarse particles enhance the toasted corn flavor of products containing the additive.

As illustrated by the Figure 11 in the originally filed application, the fried dry masa chips have a much lighter color than the TCF additive. Thus, even assuming the Examiner's conclusory allegation (without evidentiary support) that toasted and fried chips are darker, such prior art chips still fail to rise to the darkness level of the additive of the claimed invention. Consequently, for at least this reason, Applicants respectfully request the Board overturn the Examiner's rejection.

Applicants further note Table 4 of U.S. Pat. No. 5,073,392 discloses the lowest L-value for Tortilla as 72.9. Beginning at col. 19, lines 8, the '392 Patent indicates that "Objective color evaluations of the two types of samples shows significantly higher browning for the prereacted samples for both pizza crusts and tortillas." Thus, the '392 Patent indicates that 72.9 is tantamount to "significant browning" in a tortilla. The prior art simply fails to teach or suggest the claimed limitation of a colorimeter L-value of approximately 49. Consequently, because the prior art fails to teach or suggest the claimed limitation of a colorimeter L-value of approximately 49, Applicants respectfully request that the Board overturn the rejection for at least this reason.

C. One skilled in the art would not be motivated to combine the references suggested by the Examiner.

A fact-finder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742 (2007). The question is not whether the combination

was obvious to the patentee but whether the combination was obvious to a person with ordinary skill in the art. *Id.*

The Examiner makes the conclusory allegation that, “‘Salmon Patties’ suggests the use of Fritos, but it is expected that any corn chips would suffice and therefore, it would be obvious to use the corn chips of Ellis to make the regrind used in ‘Salmon Patties.’” Applicants note that the “Salmon Patties” recipe calls for sour cream and eggs. The cooking process calls for mashing and mixing ingredients together and cooking in a “well-oiled griddle” or in oil heated in a large skillet. One skilled in the art looking at Ellis would not be motivated to using low-fat corn chips of Ellis because the recipe and process teaches the use of relatively high fat ingredients such as eggs and sour cream and a fat-based cooking process of oil. Thus, the Examiner’s conclusory allegation that “any corn chips would suffice” appears to be made in hindsight.

Consideration of rebutted evidence and arguments requires office personnel to weigh the proffered evidence and arguments. MPEP 2144.08 IIB. Office personnel should avoid giving evidence no weight, except in rare circumstances. *Id.* But, the Examiner did ignore the affidavit proffered by Applicants, “because it is a restatement of Applicant’s arguments which have been addressed.” (Office Action mailed on June 15, 2005, pg. 5) An affidavit submitted by Professor Emeritus Dr. Russell Carl Hoseneay of Kansas State University was submitted in a filing on April 5, 2005 that indicates that one skilled in the art would not be motivated to combine Ellis with the Salmon Patty reference or the Food Product Design reference. As discussed in paragraph 2 and 3 of his affidavit, Dr. Hoseneay is both a cereal chemist for R&R Research and Professor Emeritus in the field of Grain Science at Kansas State University. Dr. Hoseneay earned a Ph. D. in

Grain Science. Consequently, as one having at least the level of ordinary skill in the art, he is well qualified to opine on the teachings of the prior art. In paragraph 8 of his affidavit, Dr. Hosenev indicates that "Because Ellis teaches that freshly-baked or toasted masa products are potentially bland and undesirable without at least some additional processing, such as adding oil and seasoning it would not have occurred to me to create a flavor-enhancing additive using a direct, untreated pulverization of toasted masa." Dr. Hosenev further opines that, "it would not have occurred to me to use the corn chips of Ellis as Ellis teaches that at least some amount of additional oil be added to baked corn products to avoid organoleptically unacceptable characteristics." Consequently, in view of direct testimony that the combination of Ellis with Salmon Patties would not be obvious to one having ordinary skill in the art, and in light of the fact that the MPEP instructions Office Personnel to avoid giving evidence no weight except in rare circumstances, Applicants respectfully request the Board overturn the Examiner's rejection.

Group III: Claims 17-22, 24 and 26

Applicants hereby incorporate all arguments made pertaining to Group II here. Further, Applicants point out that Examiner's reasoning for the proposed combination is flawed. Examiner states, "'Salmon Patties' discloses the grinding of corn chips (page 3) for use as filling material in a food product. It therefore would have been obvious to grind the corn chips made by the method of 'Food Product Design' for use as a coating or filler with food products." (Office Action mailed January 26, 2005, pg. 7) While use of corn chips as a filler might be plausible with a different food product such as salmon, Applicants fail to understand why one would use a corn-based "filler" made from corn in

a corn product also having corn. There is no reason for one to fill a first corn product with a second corn product. Such reasoning proffered by the Examiner creates the presumption that the combination was selected by the Examiner to support an obviousness rejection based on improper hindsight. Consequently, Applicants respectfully request the Board overturn Examiner's filler rejection as to claims 17-22, 24, and 26.

CONCLUSION

In view of the above arguments, Appellant respectfully submits that all the extant claims are allowable over the cited prior art and that the application is in condition for allowance. Accordingly, Appellant respectfully requests the Board of Patent Appeals and Interferences to overturn the rejections set forth in the Final Office Action.

Date: September 13, 2007



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VIII. CLAIMS APPENDIX

(37 C.F.R. 41.37(c)(1)(viii))

1. (Previously Presented) A toasted corn flavor additive comprising a regrind of
toasted, sheeted, freshly-made masa dough derived from ground whole corn
kernels, wherein said regrind has:

an oil content of about 2.0% to about 5.0% by weight;

- 5 a dimethyl-ethyl-pyrazine concentration such that if said regrind was
mixed with a sample of untoasted dry masa chips, said regrind would enable the
resulting mixture to exhibit a dimethyl-ethyl-pyrazine concentration of about 0.05
ppm;

a colorimeter L-value of approximately 49;

- 10 a moisture content ranging from about 0.1% to about 15% by weight.

2. (Original) The toasted corn flavor additive of Claim 1 wherein said regrind is in
the form of a powder comprising a plurality of particles, and further wherein at
least about 75% of the particles have U.S. mesh sizes between about 26 and about
50.

3. (Original) The toasted corn flavor additive of Claim 2 wherein said particles
comprise coarse particulates and fine particulates, and further wherein said coarse
particulates have an average U.S. mesh size of about 20 and said fine particulates
have an average U.S. mesh size of about 40.

4. (Canceled)

5. (Original) The toasted corn flavor additive of Claim 1 wherein said additive has a moisture content ranging from about 0.5% to about 6% by weight.

6. (Canceled)

7-16. (Canceled)

17. (Previously Presented) A method for making a toasted corn flavor for dry masa flour, said method comprising the steps of:

a) forming a fresh masa dough;

b) sheeting said fresh masa dough;

5 c) cutting said dough into a plurality of flavor preforms;

d) toasting said flavor preforms to form a plurality of toasted flavor pieces having a moisture content ranging from about 0.5% by weight to about 15% by weight; and

10 e) grinding said toasted flavor pieces into a powder to form a toasted corn flavor additive having: a dimethyl-ethyl-pyrazine concentration such that if said toasted corn flavor additive was mixed with a sample of untoasted dry masa chips, said toasted corn flavor additive would enable the resulting mixture to exhibit a dimethyl-ethyl-pyrazine concentration of about 0.05 ppm; a colorimeter L-value of approximately 49; and an oil
15 content ranging from about 2.0% to about 5.0% by weight.

18. (Original) The method for making a toasted corn flavor additive of Claim 17

wherein said forming a fresh masa dough in step a) further comprises:

- i) cooking a plurality of whole corn kernels in a solution of water and lime;
- ii) steeping said kernels in said solution;
- iii) draining said solution from said kernels;
- iv) washing said kernels; and
- v) grinding said kernels to form a fresh masa dough;

5

19. (Original) The method for making a toasted corn flavor additive of Claim 17

wherein said forming a fresh masa dough in step a) further comprises extruding a plurality of whole corn kernels with a solution of water and lime to form a fresh masa dough.

20. (Original) The method for making a toasted corn flavor additive of Claim 17

wherein said sheeting of step b) and said cutting of step c) are performed simultaneously.

21. (Original) The method for making a toasted corn flavor additive of Claim 17

wherein said toasting of step d) further comprises applying convective and radiant heat to said flavor preforms.

22. (Original) The method for making a toasted corn flavor additive of Claim 21 wherein said radiant heat comprises infrared radiation.
23. (Canceled)
24. (Original) The method for making a toasted corn flavor additive of Claim 17 wherein said toasted flavor pieces have a moisture content of about 1.0% by weight.
25. (Canceled)
26. (Original) A toasted corn flavor additive made from the method of Claim 17.
- 27-43. (Canceled)
44. (Previously Presented) The toasted corn flavor additive of Claim 1 wherein untoasted dry masa chips has a dimethyl-ethyl-pyrazine concentration of 0.023 ppm.

IX. EVIDENCE APPENDIX

Applicants submit a copy of the Affidavit of Russell Carl Hosenev pursuant to § 1.132, as evidence relied upon by appellant in the appeal. This evidence was initially submitted on April 5, 2005.

X. RELATED PROCEEDINGS APPENDIX

There are no proceedings related to this application.

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APPLICANT: Sheri Lynn Baker,	§	GROUP ART UNIT: 1761
John Mampra Mathew,	§	
Renu Mathew, and	§	
Bruce Edward Rogers	§	
	§	
FILED: October 10, 2003	§	EXAMINER: KUHN, Sarah L.
	§	
INVENTION: Toasted Flavor Additive	§	
Containing Anti-Sticking	§	
Agent	§	
	§	
SERIAL No: 10/683,967	§	ATTY FILE: CFLAY.00197

AFFIDAVIT OF RUSSELL CARL HOSENEY

1. My name is Russell Carl Hosenev. I am over 21 years-of-age, of sound mind, and capable of and authorized to prepare this affidavit. The facts recited in this affidavit are based on my personal knowledge, all of which are true and correct.

2. I am a person having ordinary skill in the art of cereal chemistry, with particular emphasis on cereal structure and function. I am presently a cereal chemist for R&R Research Services. I am also a Professor Emeritus in the field of Grain Science at Kansas State University.

3. I received a Ph.D. degree in Grain Science in 1968 from Kansas State University. I have been employed by R&R Research Services as a cereal chemist from 1997 to the present.

4. Awards and honors I have received include the following: Thomas Burr Osborne memorial Award of the American Association of Cereal Chemists. 1991. Fellow of the American Association of Cereal Chemists. 1991. Irvin E. Youngberg Research Award established by University Regents Distinguished Professor of Chemistry and Pharmacological Chemistry Aya Higuchi and Kansas University Endowment Association. 1991. William F. Geddes Memorial Award of the American Association of Cereal Chemists. 1994. Harald Perten Award, International Association of Cereal Chemists, 1995.

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5. I have over 300 publications including 20 book chapters, a textbook, and 13 US Patents. Recent Publications include: G. Shen and R. C. Hosenev. 1995. Comparisons of Aroma Extracts of Heat-Treated Cereals. *Lebensm.-Wiss. u.-Technol.* 28:208-212; K.E. Petrofsky and R. C. Hosenev. 1995. Starch-gluten interactions in doughs: Rheological properties of starch and gluten from several sources. *Cereal Chem.* 72:53-58; R. A. Miller, E. Graf, and R. C. Hosenev. 1994. Leavened dough pH determination by an improved method. *Jour Food Sci.* 59:1086-1087, 1090; V. Subramanian, R. C. Hosenev, and P. Bramel-Cox. 1994. Shear Thinning Properties of Sorghum and Corn Starches. *Cereal Chem.* 71:272-275; A. A. Akers and R. C. Hosenev. 1994. Water-soluble dextrins from alpha amylase treated bread and their relationship to bread firming. *Cereal Chem.* 71:223-226.

6. I am a member of, and actively involved in, the following professional associations. American Association of Cereal Chemists: Board of Directors 1988-1991; National President 1988-1990; Chairman of Carbohydrate Division - 1987; National Program Chairman - 1980; Served Three Year Term on Editorial Board; Cereal Chemistry Editor in Chief 2001 - Present. Institute of Food Technologists: Served on Editorial Board. American Chemical Society.

7. I have reviewed the above application as originally filed including its specification. I have reviewed the Office Action mailed on January 26, 2005. I have also reviewed the prior art cited by the Examiner in support of the claim rejections detailed in said Office Action, specifically: U.S. Patent No. 4,806,377 granted to Ellis et al. on February 21, 1989 ("Ellis"), "A Dinner Experiment" dated March 28, 2003, "Salmon Patties" dated February 6, 2000, "Food Product Design" dated January 2000, and "Dried Products" dated March 8, 2002. In particular, I have considered Examiner's contention that:

In regard to claims 1, 4, and 5, "Salmon Patties" discloses a recipe that calls for the grinding of corn chips (page 3) and the addition of the regrind to food. "Salmon Patties" does not disclose the moisture content of less than 2% by weight (column 3,

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lines 47-50) and an oil content of 2-30% by weight (column 2, lines 34-39). "Salmon Patties" suggests the use of Fritos, but it is expected that any corn chips would suffice and therefore, it would be obvious to use the corn chips of Ellis to make the regrind used in "Salmon Patties." . . .

Claims 17-25 are rejected under 35 USC 103(a) as being unpatentable over "Food Product Design" in view of "Salmon Patties" and Ellis et al. . . . "Food Product Design" further discloses the frying of the toasted flavor pieces after toasting in a triple-pass gas-fired oven, which utilizes both convective heat and infrared radiation (page 3). "Food Product Design" does not disclose the moisture content or oil content of the chips and also does not disclose the grinding of the chips. However, Ellis discloses corn chips and also does not disclose the grinding of the chips. However, Ellis discloses corn chips with a moisture content of less than 2% by weight (column 3, lines 47-50) and an oil content of 2-30% by weight (column 2, lines 34-39) and it would therefore have been obvious to use the method of "Food Product Design" to make chips with low moisture and oil content as taught by Ellis in order to provide chips with reduced fat content. "Salmon Patties" discloses the grinding of corn chips (page 3) for use as filling material in a food product. It therefore would have been obvious to grind corn chips made by the method of "Food Product Design" for use as a coating or filler with food products.

8. As one skilled in the art, I disagree with Examiner's contention that it would be obvious to use the corn chips of Ellis to make the regrind used in "Salmon Patties." A dry toasting, as required by Applicants' invention, is quite different from the deep-fat/oil frying used to prepare commercial corn chips such as Fritos® brand chips and tortilla chips. In fact, commercial corn chips generally comprise roughly 30% by weight oil, which is in stark contrast to the 5%-or-less oil content in Applicants' flavor additive. In addition, virtually all commercial corn chips are salted or otherwise seasoned. It is therefore my belief that the toasted corn flavor of the Applicants' claimed additive would have a different flavor note than that found in commercial corn chips. Thus, one skilled in the art, such as myself, would not have considered toasting corn masa, regrinding the freshly-toasted material without any further processing or addition of oil, and combining it with other products to enhance their toasted flavor. Furthermore, it would not have occurred to me to use the corn chips of Ellis, as Ellis teaches that at least some amount of additional oil be added to baked corn products to avoid organoleptically unacceptable characteristics. Because Ellis teaches that freshly-baked or

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toasted masa products are potentially bland and undesirable without at least some additional processing, such as adding oil or seasoning, it would not have occurred to me to create a flavor-enhancing additive using a direct, untreated pulverization of toasted masa, as claimed by Applicants.

9. As one skilled in the art, I disagree with Examiner's contention that it would be obvious to use the method of "Food Product Design" to make chips with low moisture and oil content as taught by Ellis in order to provide chips with reduced fat content, and then grind such corn chips as taught by the method of "Food Product Design" for use as a coating or filler with food products. Like Ellis as explained above, "Food Product Design" teaches that to obtain acceptable product, freshly-baked corn products must be given least some amount of additional oil, or at least undergo further processing to ensure that seasoning adheres to their surfaces. Because Ellis and "Food Product Design" both teach that freshly-baked or toasted masa products are potentially bland and undesirable without at least some additional processing, such as adding oil or seasoning, it would not have occurred to me to create a flavor-enhancing additive using a direct, untreated pulverization of toasted masa, as claimed by Applicants.

10. As one skilled in the art, after reading the cited references, I do not see any suggestion to combine the teachings of Ellis with the teachings of "Salmon Patties," "Food Product Design," or any of the other cited references to arrive at Applicants' claimed invention. In fact, one skilled in the art, after reading the cited references, particularly Ellis and "Food Product Design," would conclude that a pulverization of toasted masa would have undesirable organoleptic properties and would therefore not be motivated to use such an unprocessed pulverization as a flavor additive.

11. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are

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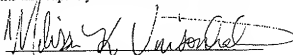
punishable by fine or imprisonment, or both, under Section 101 Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the patent.



Russell Carl Hosenev
AFFIANT

THE STATE OF KANSAS §
COUNTY OF RILEY §

BEFORE ME, the undersigned authority, on this day personally appeared Russell Carl Hosenev known to me to be the person whose name is subscribed to the foregoing instrument and, being by me first duly sworn, upon oath declared that the statements and capacity acted in are true and correct.


Notary

(SEAL)

